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TIC

A MAGAZINE FOR
DENTISTS
DENTAL HYGIENISTS
DENTAL ASSISTANTS

Editor,
Joseph Strack

Contributing Editors,
Arthur H. Levine, D.D.S.
Joseph Murray, D.D.S.

Art Director,
Edward Kasper

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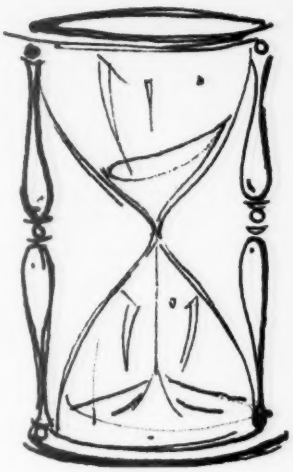
NOTHING IS FOREVER



BY MAURICE J. TEITELBAUM, D.D.S.

One of New York's most successful dentists, a leader in the field of full mouth construction, was asked: "When you complete an extensive case that includes jackets, crowns and fixed bridges, for how long a period of time do you guarantee the work?" The answer was one that should clear the muddled thinking of most of us on this matter: "There is no guarantee!" However, the patient is led to understand that if breakage occurs or any remake is necessary within a year, the work is redone without any cost to the patient. For any repair incurred the second or third year, there may be a slight charge, depending upon the circumstances involved. But after three years, the patient must assume the burden of expense—this, in cases running to three and four thousand dollars.

And why not? Too many patients have the idea that dental work must last for ten years, twenty years or even a lifetime. They accept the idea that a television tube may go blooey after a year or that they must bear the full expense in repairing a four-thousand-dollar car after only five months of limited usage, yet a three-unit bridge must last forever! Even the owner of a fifteen-thousand-dollar Rolls Royce must pay for all repairs after three years. It is high time that patients were educated to the fact that nothing is forever—even dental work.

Why We Cannot "Guarantee"

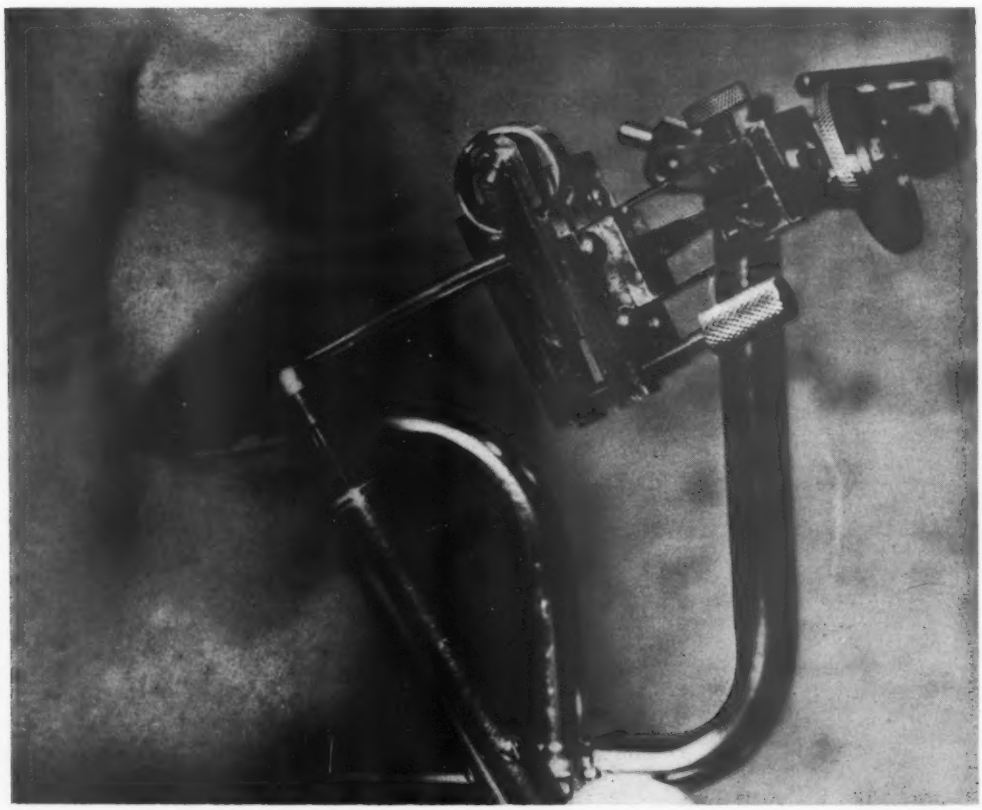
The dentist, too, must revamp his own thinking as to "guarantees." Naturally, any dentist worth the title bestowed upon him endeavors to do the best work he is capable of producing, and hopes that it will last the longest possible time. But one cannot ignore the failings of material, the lack of perfection in human skills, the patient's habits and his specific physiologic make-up. There are few things mechanically constructed that are used and abused as much as dental restorations that don't need to be repaired at some time. Acrylics wear, porcelain fractures, caries invades marginal areas, gingival tissue recedes, patients neglect oral hygiene, the body is beset with changes that affect the oral cavity—ad disgustum. These are the things that can and do occur in every dentist's practice—if he is busily engaged in mouth reconstruction. They are the unpleasant facts that must be faced.

However, once we learn to accept the possibility of these things occuring, we can better adjust ourselves to the time when our work must be redone. When gingival decay is discovered around the abutment crown or a four-unit bridge that has been in the mouth for six years, why should the dentist get that empty sickening feeling in his stomach that beckons the formation of an ulcer? He won't be elated to find his work is in need of repair, but at least he'll take it in his stride if he, too, understands that nothing is forever.

The average patient who is constantly being submerged in a buying economy that overflows with "guarantees" and "money-back" slogans, often takes a dental guarantee for granted. It is the dentist's duty, if he is to avoid future problems with dental failures, to set the patient straight right from the start. The only thing the ethical dentist can really guarantee is the quality of his work. You can tell the patient that the work you are going to do is the best you know how to do. This assurance, plus your integrity and reputation, is usually enough to convince the patient that he is getting good dentistry and good value for his dollar. Illustrating the cost of an automobile with the depreciation of three thousand dollars in four years, even with constant repair and upkeep, will help further to convince the patient of the "bargain" he is getting if his work holds up for five years— and not a lifetime —before it must be redone. The patient who must submit to a remake after five years will not be elated, but neither will he be vindictive, nor think that he has been cheated, if he was made to realize when the work was first completed that nothing is forever.

446 Clinton Place
Newark 12, N. J.

Mobilometer



This instrument, a tooth mobilometer, was designed by Albert L. Thomas, Jr., and Alvin Bird, Jr., of the staff of the Southern Research Institute in Birmingham, Ala. Its purpose is to measure how much a tooth will move. Since a healthy tooth will move only 200 millionths of an inch under a force of one pound, it is evident how accurate the machine must be. The institute developed the mobilometer at the request of medical researchers who wished to test a theory that the amount of movement in teeth is a clue to general health. ***(World Wide Photos)***

late Doctor George S. Long of iana, last dentist to serve in the S. House of Representatives.

Doctor Cheddi Jagan of British Guiana, Minister of Labor, Health and Housing, and former Prime Minister.

The late Doctor Lester C. Hunt of Wyoming, last member of the profession to serve in the U.S. Senate.

Doctor Rafiuddin Ahmed of West Bengal, Minister of Agriculture, Animal Husbandry and Forestry.

DENTISTS IN *GOVERNMENT*

BY HARRY CIMRING, D.D.S.

There are currently no dentists in the U. S. Congress, following the recent death of Representative George S. Long, Democrat of Louisiana. A graduate of the New Orleans Dental College (1903), he practiced dentistry in Oklahoma and Louisiana until 1953, when he was elected to Congress. Also an attorney, he was the brother of Huey (former governor) and Earl (present governor) and the uncle of U. S. Senator Russell Long, all of Louisiana.

The last dentist to serve in the Senate was Lester C. Hunt, Democrat of Wyoming, who died in 1954. A graduate of St. Louis University (1917), he practiced dentistry in Wyoming until he entered politics in 1932, when he was elected to the Wyoming legislature. He served as secretary of state from 1934 to 1942 and was governor from 1942 to 1948. He was then elected to the U. S. Senate, where he specialized in legislation on health matters and dental problems. Doctor Hunt served in the dental corps in World War I. He was a member of the Wyoming board of dental examiners, and was president of the state dental society in 1926.

Another dentist in the Senate was Henrik Shipstead of Minnesota, the first and only Farmer-Laborite in that body. He graduated from Northwestern University School of Dentistry in 1903. He practiced both in Glenwood and Minneapolis until 1920. He was mayor of Glenwood, a member of the state house of representatives, and a school teacher before going to Washington and serving there from 1922 to 1940.

Doctors Roy O. Woodruff, Joseph S. Wolff, and Frank Crowther also served in the House of Representatives. Woodruff, Republican of Michigan, a graduate of the College of Medicine in Detroit (1932), was mayor of Bay City before serving sixteen sessions in Congress.

Wolff, Democrat of Missouri, a graduate of Washington University School of Dentistry in St. Louis (1905), as well as a practicing attorney, served as mayor of Festus and as a member of the state legislature before going to Congress for one session.

Crowther, Republican of New York, was born in England and attended a school of design before studying dentistry at the Harvard School of Dental Medicine (1898). He practiced dentistry and politics in Massachusetts, New Jersey, and New York before serving in Congress for twelve sessions. He retired to Pueblo, Colorado.

Perhaps the highest political office attained by a dentist educated in the United States was that of majority leader and prime minister, a post held twice, each time for a short period, by Doctor Cheddi Jagan, graduate of Northwestern University School of Dentistry, and a practitioner in British Guiana. Doctor Jagan, who is of East Indian ancestry and is married to a Chicagoan, heads the leftist People's Progressive Party in British Guiana, which has been jousting with the British Colonial Office for a decade.

Doctor Rafiuddin Ahmed came to the United States from India penniless, working his way through the State University of Iowa College of Dentistry (1915). He practiced dentistry in American hospitals during the war years and then returned to his native land. Today he holds the high position of Minister of Agriculture, Animal Husbandry and Forestry of West Bengal, one of the more important governmental subdivisions of India.

Doctor Ahmed practiced dentistry in Calcutta for about thirty years before going into politics full-time. In 1920 he founded the Calcutta Dental College and Hospital, the first dental school in all India, which he developed into a first-rate teaching institute. In 1949 he made a gift of the college to the West Bengal Government, which now administers it.

In 1936 he prevailed upon the legislature to appoint an enquiry committee, whose findings resulted in the 1939 Bengal Dentist Act, which set up modern standards and requirements. This province was the first in the nation and set an example for the All-India Dental Act of 1948.

Doctor Ahmed helped to organize the All-India Dental Association and was its president for three terms. He founded the first Indian dental journal in 1925 and turned it over to the Dental Association in 1946 as its official organ. He wrote a text on operative dentistry, as well as many scientific articles. He received many honors and degrees and represented his country in many scientific meetings.

In politics and civic groups he held numerous elective and appointive offices and served on the governing boards of many institutions. He has been an active proponent of Hindu-Muslim unity and has worked for the cultural synthesis of the Indian peoples.

240 South La Cienega Blvd.
East Beverly Hills, Calif.

"OH, JUST KILLING TIME. WHAT ARE YOU DOING?"

I Wonder Why the Patient Who

Eats pecan and hazel nuts,
And chews so vigorously on thick Havana butts,

Tears roast beef from the ribs and lamb chops from the bone,
And sucks on sweet hard candy when talking on the phone—

Then comes into the office and sternly shakes his head,
Complaining that a filling broke on a soft white slice of bread!

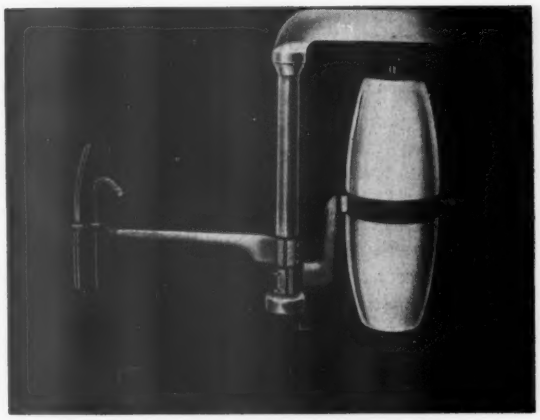
M. J. T.

A CENTURY OF PROGRESS: DENTAL EQUIPMENT

Part 7: BY CURT PROSKAUER, D.M.D.

There was no urgent necessity for dentists practicing before the middle of the eighteenth century to use any apparatus for ridding the mouth of saliva, since dental treatment then consisted only of minor surgery, extraction, cleaning, and insertion of artificial dentures. This changed with the advent of "sponge" or "crystal" gold for filling teeth and the introduction of pulp treatment; the filling and the root cavity had to be kept dry.

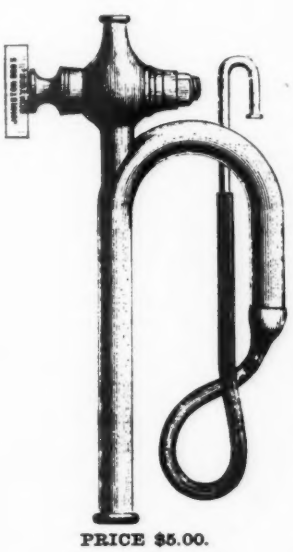
In 1876 W. H. Elliott of Montreal constructed a simple and effective device for freeing the oral cavity of saliva. It could be used wherever running water was available. The "saliva ejector" very quickly won admirers; in the letter of an American lady who visited Paris in 1878 we read that at the Paris offices of the American dentists Daboll, Cook, Bogue and Moffet she saw "the most interesting instrument in the operating room, the most wonderful, the greatest invention of the age—one which robs the dental chair of half its terrors, the 'saliva ejector.'



Courtesy, Pelton & Crane Company, Charlotte, N.C.

"Perhaps you have seen them," she continued, "perhaps you have one; if not, you should get one at once, if you have any regard for the comfort of your patient . . . Comfort? I can assure you it is really delightful compared with former operations of this character which I have undergone. No choking, no stuffing of napkins into your collar, and then feeling the warm liquid slide over the lips, chin, neck, collar, cravat, dress, everything. No hurry for the dentist; no seeing the saliva well up through an unsuspected hole in the dam, deluging a half-finished filling! Not a bit of it, for there goes the saliva running down this tube. The patient with dry face, not suffocated with napkins—mouth always comfortably dry—can hear the drip, drip, as water carries it into the spittoon or reservoir made to receive it, while the operator works on without that haste and anxiety which is so wearing, feeling that his patient is comfortable and in no danger of strangling to death."

The modern saliva ejector, powered by electricity but based on the same principle as Elliott's, effects a steady evacuation and keeps the operating field clear of all blood, saliva, and debris.



PRICE $5.00.

Elliott's saliva ejector.

Snow's ejector. 1876.

720 Washington Avenue
New York 40, N.Y.

The Bilateral Free-End Saddle Lower Denture

PART 2: BY JOSEPH MURRAY, D.D.S.

The final case for stress-breaking can be made with Doctor A. F. Schopper's approach to the problem. Armed with a complete set of excellent roentgenograms and an accurate set of mounted study casts, he uses a distal extension device which permits the substitute teeth on the free-end saddle to function independently and without torque or strain on the abutment teeth.

It is not controlled by any indirect springs, but by the occlusion; it has lateral and vertical movement during mastication and returns to its rest position when the teeth are in centric occlusion. Since the stress-breaker controls only the individual saddle, two such devices will be necessary if the denture has a free-end bilaterally.

The end result is a passive appliance (the impressions are taken without tissue displacement) which means no pull or pressure on either the hard or soft tissues of the mouth when masticatory pressure is released.

The second group favors a few relatively mobile direct retainers, to be used for limited retention only. Functional displacement of the mucosa must be obtained either in the impression-making by pressurized recording, or by means of a pressure rebase which will record the functional form of the tissues, as contrasted with the static anatomic form.

Requirements for physiologically-based cases are that the tissue side of the bases presents functional form; artificial teeth make slightly premature contact; occlusal rests or attachments are just unseated until the mucosa is displaced to functional form; direct retainers are freely movable, and there is a minimum of direct retainers for retention only.

Advantages of physiologic or functional basing are:

Due to the simplicity of design and construction, the appliance is light, small in bulk, and requires little servicing.

Because of cell proliferation caused by physiologic massage, the necessity for rebasing is eliminated.

The mucosa and ridge actually share the burden of mastication.

Since the tissues are physiologically stimulated or massaged, normal function and repair results.

The abutment teeth are preserved because of the lightness of clasp contact or freely movable frictional attachments.

The disadvantages, on the other hand, are:

Free-moving and minimum number of direct retainers interfere with the stability of the denture, which is especially subject to lateral thrusts.

The over-compression of tissue necessary to secure functional displacement will result in rapid resorption of the mucosa and the need for rebasing in many instances.

The remaining teeth do not share in stabilizing the denture and resisting stress.

Because the denture moves vertically, indirect retention is inefficient.

A feeling of insecurity results from movement of the appliance.

High occlusal contacts cause incipient discomfort to the denture-wearer.

Restoration-Reproducing Functional Form

As with the sponsors of the stress-breaker, equally prominent authorities favor the restoration-reproducing functional form.

Doctors O. C. Applegate and R. O. Nissle feel that next to the reduction of the occlusal table during increased muscular activity and biting force, harmonizing the occlusal relations is the step in partial denture prosthesis where most can be accomplished toward bringing the stress loads within the range of the patient's tissue tolerance.

Since stresses generated during sleep (unconscious gritting of teeth) can be more destructive than masticatory strain, the authors describe a technique, applicable to the lower partial denture, in which the patient is allowed to wear a special wax occlusal rim during sleep, which reduces to a minimum the stresses generated.

The appliance will have been finished, except for the addition of the teeth, so that this rim is supported securely. After being worn by the patient (except when eating) an occlusal pattern of paths is produced which will record exact occlusal harmony in all jaw positions, including the abnormal, eccentric ones assumed during sleep.

The authors' claim that the adjustment of porcelain or acrylic teeth to a stone template made from this wax pattern will result in the complete elimination of malocclusal stress.

Recently, Doctor Applegate has offered modified measures of this method to avoid resorption of the foundation structures in the extension partial denture. He advocates, in cases of extremely long periods of ridge disuse:

1. Reconditioning the foundation-area structures before they are to be used to support a work load.
2. Assuring a proper tissue-base relationship during periods of rest and when occlusal

forces are being applied.

3. Extending the base to provide maximum mandibular coverage.
4. Reducing the occlusal table area and maintaining a balanced occlusal relationship.
5. Using metal for the construction of the base wherever possible.

When an edentulous state has existed for a long time resulting in disuse atrophy or osteoporosis, Doctor Applegate prescribes the construction of a temporary exercise prosthesis for use over a period of a few months, or an appliance with the base adapted to functional form and extended to maximum area, without replacing the missing teeth.

In the first instance, resin bases are constructed on a cast made from a correctable impression of the foundation area, whose borders are extended to moving peripheral tissues. The basal surface is supported throughout when finger pressure is applied. Exercise is given daily by finger contact simultaneously on each base, or by biting on the fingers if there are opposing teeth.

The second exercise prosthesis utilizes the framework and bases of the finished free-end denture. Narrow occlusal rims of soft resin may or may not be added. In either event, the appliance is used to supply work-stimulation to the foundation area by biting on fingers placed simultaneously on the right and left sides. Teeth will be added three or more months later when the ridge structures are conditioned to work loads.

Doctor W. L. McCracken, too, utilizes the wax occlusion rim for developing occlusal pathways from jaw movements. However, instead of using a stone template which is easily abraded by continuous closure against the denture teeth as they are being ground into occlusion, he prefers the more durable electroformed silver template with two stone stops to preserve the vertical relation.

Continuing with the physiologic basing enthusiasts, Doctor L. D. Jordon insists that although an accurate impression of the teeth is necessary at all times, soft tissues that comprise any part of the denture foundation should be recorded in a state of functional displacement.

Like Doctor E. Kennedy, he feels that rebasing should be done either during impression-making or after the denture is completed, if compression of the mucosa is not obtained with the original impression.

Favoring Broad Stress Distribution

The third school of thought, with equally prominent representation, favors broad stress distribution. Prosthetic specialists like Doctors C. H. Schuyler, M. M. DeVan, A. R. Frechette, and V. L. Steffel recommend multiple tooth engagement by clasps and extra rests, chiefly to prevent lateral movements.

A distributed stress case requires cast or rigid wrought direct retainers (internal or external); positive lug seats; all rigid, nonflexible framework; multiple rests and direct retainers; indirect retainers to add stability when practicable, and well adapted, broad coverage bases.

Doctor Schuyler states that in the case of the partial denture, the lateral forces applied to the abutment teeth are proportionately reduced as the number of teeth used to carry the appliance is increased.

It has often been said that two clasps are sufficient for any restoration. This is true if retention is considered the only function of a clasp; but why should the burden of lateral forces in function be limited to only two teeth, if others are available to share this burden?

Doctor De Van, too, advocates the utilization of added support: where a natural denture has lost more than half its abutments, any normal teeth remaining may be employed as auxiliary abutments by placing occlusal rests on their stoned-down marginal ridges.

And Doctor Steffel adds that the denture must have definite tooth support by multiple clasps and occlusal rests. The greater the number of rests, the better is the stress distribution.

Finally, Doctor Frechette upholds the school, by saying that vertical forces must be positively controlled and countered by combined tooth and mucosa support through the use of multiple rests and adequate saddles. Stress should be delivered to as many teeth as is practicable by the occlusal rests of clasps and by additional rests placed for this purpose.

Advantages of broad stress distribution are as follows:

Functional stresses are limited and distributed, protective influence is exerted, and overstimulation is prevented.

Teeth are immobilized, which allows for tissue regeneration.

No stress-supporting element is overstimulated or traumatized, which increases the life of the denture and eliminates rebasing.

Restorations are well stabilized against teeth to resist lateral thrusts, and cases usually provide excellent indirect retention.

The disadvantages of this design are that multiple contacts and additional supports sometimes irritate the tongue and make the restoration more conducive to caries.

1358 46 Street
Brooklyn 19, N.Y.

PART 3: NEXT MONTH

Doctor Phillips helps to load dental equipment. It was shipped from New Orleans to Lambarene. A film of the trip was shown on Bold Journey, television program.

DENTIST SCHWEI

BY MELVICH, D
AND EILACH

If Doctor Albert Schweitzer thought his refusal to support Doctor Herbert Phillips' plan would deter the Chicago dentist, he was wrong. Instead, Doctor Phillips was more firmly convinced of Doctor Schweitzer's greatness and the value of such a project. He was disappointed but undaunted.

Returning to the States, Doctor Phillips doggedly sought additional support. A friend arranged a conference with Washington statesmen in charge of education. Another conference was held with several of Doctor Schweitzer's friends. These men enthusiastically agreed to support a plan that would be a real contribution to American education. They hoped to establish university chairs or distinguished professorships in Doctor Schweitzer's name if he approved.

The object? To permit future students to study and evaluate Doctor Schweitzer's philosophical and scientific works as objectively as those of other philosophers since Plato and Aristotle.

Doctor Phillips volunteered to make the pilgrimage to Lambarene, French Equatorial Africa, to seek Doctor Schweitzer's permission and counsel.

"Actually, my purpose was two-fold," he admits. "Besides seeking Doctor Schweitzer's endorsement of our plan, I was plain curious. I had read many conflicting accounts of this unusual jungle hospital. I wanted to see what this unselfish, remarkable humanitarian was really accomplishing in his unique medical mission in one of the darkest recesses of Africa."

And so it was in June 1956 that this modest, sincere, Chicago dentist found himself in a dugout tree trunk being paddled up the swift Ogowe River in French Equatorial Africa toward the famous jungle hospital. On the bank he was greeted by Doctor Schweitzer and some of his devoted workers. "Communications were somewhat strained," Doctor Phillips recalled. "They all spoke French fluently. My French was inadequate to convey any sixteen-cylinder ideas, so I had to use an interpreter."

Doctor Phillips was settled comfortably in a small, clean room. He was delighted to find that reverence for life at Lambarene did not include reverence for lice and other bedtime companions which he had fought in France, China, Afghanistan, and even California. He gladly shelved the insect repellents he had brought along.

He says, "As I strolled about the hospital that is not a hospital, the native village that is more than a village, the community that is among other things a zoo, and the mission station that is not a mission, I groped for hidden wisdom, buried motives, the sources of influence and centers of magnetism."

His first day at Lambarene included a visit to the Leper village, later, dinner with the famous doctor and his staff. After coffee, he cornered Mme. Ober-

Doctor Phillips a Theodor down the Peru examine patients.

STXPLORES
EIER-LAND

MELVCH, D.D.S.
AND EILACH

Phillips a Theodore Binder
the Pen examine Indian
nts.

man, his interpreter, and explained his mission. He gave her a portfolio for Doctor Schweitzer's consideration. It contained the plan, documents, and letters of endorsement from the most learned men of our time.

A short while later, Mme. Oberman brought this brief message: Dr. Schweitzer appreciates the gesture. The honor is far too great. The idea is utterly impossible.

"Again I felt the cold splash of ice water. Once more my mission seemed to fail," Doctor Phillips said. "But I was quickly assured I was welcome to stay on at the jungle. My disappointment was partially cushioned when two of the physicians asked if they could 'exploit' me to teach them dentistry."

Teaches Dentistry to Physicians

Familiar with the needs of the struggling community, a fourth of Doctor Phillips' baggage included medical supplies, dental instruments, syringes, and anesthetics. He rejoiced knowing he would be able to use them to get acquainted with the real inner mechanism of the hospital, to learn its strength and weaknesses and its positive impact on the Africans.

The remainder of Doctor Phillips' stay was spent mostly in the "dental clinic." The primitive equipment reminded him of the museum piece he used on his earn-as-you-go honeymoon. The dental chair might easily have doubled as a barber chair except that it was stationary—no tilt, no up or down. Lack of a foot rest allowed the patients' bare feet to rove or rest on the floor.

"At first, I wished for the modern equipment standing idle in my Chicago office," he said. "But I soon realized that units with thousands of screws and intricate gas, electrical and plumbing installations would be a constant source of frustration in this jungle hospital where there were no servicemen or suppliers.

"In spite of the crude conditions in the clinic, my proteges learned quickly," he says. "I demonstrated local anesthetics, extractions and other simple preparations to the two eager physicians. They could never pass a state dental board but ingenuity made up for deficiencies in dental training."

Doctor Phillips' third evening at Lambarene was spent with Doctor Schweitzer. Doctor Schweitzer was an expert at extracting information from his guest. Doctor Phillips conveyed much of his own history to his host. Whenever he tried to ask for an interpretation of a philosophy or force an ethical issue, Doctor Schweitzer adroitly sidestepped it and bade him continue with the story that led him to Lambarene.

An afternoon a few days later, Doctor Phillips' turn to ask questions came. Doctor Schweitzer and the interpreter visited him in his room. "The discussion which ensued was the climax of my visit," he says. "Doctor Schweitzer's answers coupled with

Children of the leper village at Lambarene. They were among the patients treated by Doctor Phillips.

"This was our modest office in South India at an American mission school. We had wild orchids in our yard, and elephants, panthers, and snakes for neighbors."

"This was a barber-dentist in Kabul, Afghanistan. Note the forceps and the clippers, side by side."

my studies and observations, convinced me that Lambarene could be defined as the mecca of liberty for free individuals throughout the world. Ruling at Lambarene, with the power of love derived from reason, is Prophet Schweitzer, the first of the twentieth century liberators."

While working in the clinic the evening before his scheduled departure from Lambarene, Doctor Phillips received an invitation to Doctor Schweitzer's room to listen to music. As he listened to Doctor Schweitzer expertly play a Bach concerto, he decided to make one last effort to fulfill his mission. At the conclusion of the music, he urged Doctor Schweitzer to reconsider his refusal to allow his name to be used in connection with chairs and professorships in American universities.

A debate ensued in which Doctor Phillips seemingly made all his points register. Finally, the gracious host smiled and said, "Doctor Phillips, I did not expect these arguements. You win."

Schweitzer Foundation Founded

Doctor Phillips returned home elated. Immediately he set the wheels in motion for the establishment of the Albert Schweitzer Education Foundation. The certificate of incorporation was granted in record time in February 1958. Briefly, it reads:

> The purpose of the Albert Schweitzer Education Foundation is to provide as many people in our country as possible the opportunity to be exposed to the thinking of this great man. The purpose is not to indoctrinate but simply to make Doctor Schweitzer's ideas accessible, on the premise that people have the right to consider and evaluate his wisdom.

Armed with the certificate, Doctor Phillips once again started for Lambarene. He took a circuitous route via Peru and Haiti, where hospitals based on the Schweitzer principles are in operation. He wanted to give Doctor Schweitzer a report on their progress as well as discuss the plans of the Foundation.

After breakfast on the morning of his second arrival at Lambarene, Doctor Phillips was again with Doctor Schweitzer. Upon hearing of all that had been accomplished, Doctor Schweitzer was unable to conceal his good will and satisfaction.

Doctor Phillips explained that the immediate project his associates decided upon was the development of modern audio-visual aids that would facilitate the understanding of Doctor Schweitzer's writings.

Shortly after Doctor Phillips left Lambarene, Doctor Schweitzer released his views concerning the world crisis through the Nobel Peace Prize Committee in Oslo. The Albert Schweitzer Education Foundation published the English translation and distributed it to civic leaders.

Doctor Phillips' individual contribution to the understanding and perpetuation of Doctor Schweitzer's thinking is contained in his recently published book, *Safari of Discovery, the Universe of Albert Schweitzer.* The competently written book is a subtle blend of ethical abstractions, adventure and entertainment.

Doctor Phillips realizes that while much of his work is behind him, much more needs to be done. It takes money to operate this ambitious venture.

From Chicago's Pittsfield Building, in a small office three floors above his dental practice, Mrs. Phillips is busy mailing literature and opening contributions to the Albert Schweitzer Education Foundation.

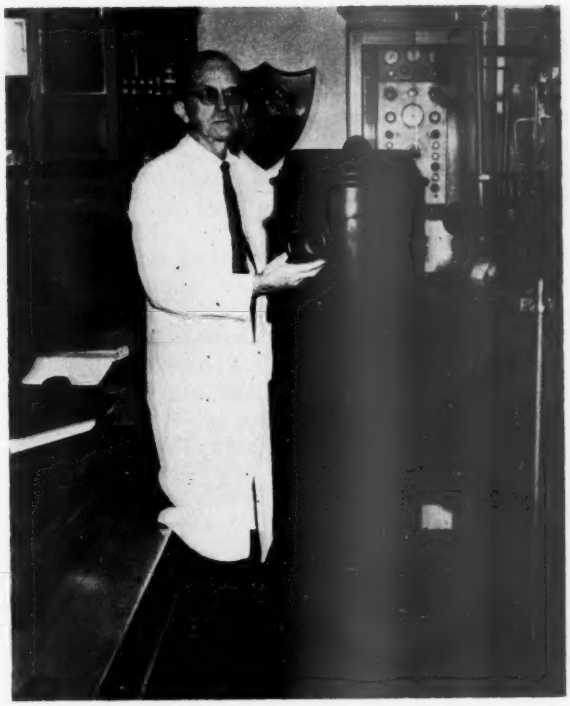
"My husband does get time to practice dentistry between his trips," she assured us with a broad smile. She made the understatement of the year when she added, "He is a man of tremendous enthusiasm and energy, a man who likes to see things get done and enjoys doing them."

Dental Museum

The famous Dental Museum of the Temple University School of Dentistry in Philadelphia contains many, varied relics of the profession—everything from the most crude instruments to such genteel implements as gold toothpicks.

Among the items on display are a photostat of a letter advising George Washington on his dental problems; an Egyptian mummy's molar; a tattooed whale's tooth—and a mink-bristled toothbrush!

Doctor Harold L. Faggart is curator of the institution.



Curator Harold L. Faggart, with one of dentistry's first X-ray machines. *(Photo, George J. Roebas)*

Some of the earliest dental equipment is on display at the museum. *(Photo, George J. Roebas)*

AT YOUR SERVICE:

WHAT THE ADA MEANS TO YOU

PART 6: BY JOSEPH GEORGE STRACK

It was a hundred years ago, on the morning of August 3, 1859, to be exact, that twenty-six men gathered in a hotel in Niagara Falls, N. Y., to discuss problems surrounding the practice of dentistry in the United States.

These were some of the problems:

1. Charlatans, posing as dentists, were mulcting the public.
2. Proprietary dental schools were being operated by their owners for private profit. Only three non-proprietary schools were in operation, producing less than sixty graduates annually. Many "dentists" were men who had served a brief apprenticeship with practicing dentists whose abilities ranged from adequate to absent.
3. There were little or no professional standards and ethics.
4. There was no standardization of material or techniques. The rule, more often than not, was to improvise.
5. Dentistry was focused upon becoming a mechanical service, not a health science.
6. Pain was, it seemed, an inevitable concomitant of dental treatment.
7. Diagnostic methods were crude and unreliable.
8. Research and prevention programs did not exist, and, without such activities, dentistry as a health discipline had no future.
9. Dentists had no professional organization through which they could work to develop their professional training, skills, and opportunities, and to interpret to the public's dentistry's role in the protection and promotion of health.

The twenty-six men developed a basic approach to those and other problems, an approach that was to make it possible to improve the oral health of millions of men, women, and children during the next hundred years. Their courage, wisdom, and foresight produced the organizational device through which they, and all other men interested in fulfilling the promise of American dentistry, could rid the American scene of the fraudulent and the incompetent; realize the objective of professional training; build sound standards of dental practice; and blueprint the future, in part, through research and prevention programs.

How well these men planned, worked, and helped to lay the foundation for modern-day dentistry is one of the outstanding stories in the whole history of health. It is not accidental that since the formation of the American Dental Association on that hot August day a hundred years ago, almost all the major developments in dentistry have occurred. Here are some of those achievements:

1. Emphasis upon dentistry as a science founded upon biological and physicial sciences, rather than a mere mechanical service. And the most recent significant change in emphasis—from dentistry as a restorative service to dentistry as a preventive service.
2. Development of fluoridation to combat caries.
3. Use of X-rays for diagnosis, and improvement of X-ray materials.
4. Increasing recognition of the importance of primary teeth.
5. Scientific standardization of materials and techniques.
6. Improvements in local anesthetics, especially their potency and the reduction in toxicity.
7. The use of antibiotics.
8. Improvement in artificial dentures and in the techniques for their retention.
9. Development of new instrumental techniques for reducing pain and discomfort during cavity preparation.
10. The use of acrylics for dentures, crowns, and bridgework.
11. Improvement in drugs, chemicals, and techniques for treatment of root canals.
12. Use of such general anesthetics as divinyl ether and barbituates such as thiopental sodium.
13. New and better methods for the restoration of mutilated jaws and faces.
14. More effective diagnostic screening tests for dental caries activity.
15. Development of chemical germicides and their

application for instrument disinfection.

16. Establishment of minimum standards of dental education, through licensing laws and through a dental school approval program conducted by the profession itself.
17. The successful efforts of the profession to establish dental units in the state public health services. Today forty-nine states, the District of Columbia, the territories and the dependencies have these units.
18. And, the most important achievement of all, because it laid the foundation for all dental progress—the growth of the American Dental Association and with it the development of scientific and ethical standards of treatment.

Today there are 91,000 members of the ADA, all professional descendants of the twenty-six dentists who planned so well a century ago. It is interesting to note that the Civil War split dentists into two camps, as it did the general population of the nation. In 1869 the dentists who had broken away from the ADA formed the Southern Dental Association. They remained away from the parent group for twenty-eight years. Then, in 1897, the two groups merged under the name of the National Dental Association. It was not until 1922 that the organization resumed its original name, the American Dental Association.

The democratic development of the ADA has been such that today it has fifty-four constituent state and territorial dental societies, which are made up of 450 component—or district and local—dental societies. Every major Association activity is designed, directly or indirectly, to support the ADA's basic objective: "to encourage the improvement of the health of the public and to promote the art and science of dentistry."

"The truest barometer of a profession is its schools," a statement by the Association declares, adding: "It was in America that dentistry was first recognized as a separate and independent profession with its own formal program of dental education."

Today, thanks to the work of the ADA and allied groups, there are forty-seven first-rate dental schools in the United States; nearly all are associated with universities and many with teaching hospitals.

Dental research has, of course, played a tremendous part in the rapid progress of dentistry in recent decades. One authority provided this background for perspective:

"Up to the turn of the century, extraction of teeth was still viewed as a cure-all for many diseases, including mental disease. Roentgen had discovered the X-ray five years before but its use in dentistry was still in the future. Instead of microscopes and films, there were stereopticon slides. Virtually nothing was known about disease of the mouth. New procedures, new appliances and new instruments gradually came into being, mostly from the offices of dental practitioners.

"As scientific research progressed, advances in so-called restorative dentistry were phenomenal. Among these were new filling materials, new means for cavity preparations, new technics and materials for treating denture patients, the introduction of procains to eliminate pain and, above all, emphasis on conserving the diseased tooth. The early emphasis on technology gave way to the recognition that all the sciences could contribute to dental investigation and there came a realization that the only genuine solution to the dental disease problem lay in prevention."

Today dental scientists are investigating the relationship between dental disease and rheumatic heart conditions. They are developing technics for treating cleft lip and cleft palate patients and studying possible means of preventing these defects. They are probing factors associated with oral cancer. They are surveying all aspects of periodontal disease. They are examining the relationship between nutrition and dental diseases, and the prenatal influence of nutrition on a child's dental development. They are using radioactive tracers, the electron microscopes, polarized light, and transillumination in widescaled efforts to resolve the basic problems of dental decay.

The Association has sponsored its own research activities for more than a half-century.

Dentistry can take its place among all other health professions in the degree to which it has faced up to its professional and social responsibilities. It has assumed these responsibilities in three vital areas: (1) development of successful programs to prevent disease; (2) establishment of programs to make dental care available to all who need it; and (3) operation of continuous campaigns to protect the public from inferior and fraudulent

oral health services and products. For example:

The Association promulgated a set of principles, *A Dental Health Program for the Community, State and Nation*, as a guide for the development of programs to make dental care available to all who need it, regardless of income or geographical area.

It has established programs to make dental care increasingly available to all segments of the population, including the aging, the hospitalized, the chronically ill, children, handicapped children, and others who were previously regarded as "dental orphans."

World-Wide Progress

It has been a factor in world-wide advances in dental health through support of the Federation Dentaire International, an organization of national dental societies, and, through it, the World Health Organization.

The profession has made more dental care available through scientific developments and through increasing the number of auxiliary personnel—both dental hygienists and dental assistants. Training in the use of auxiliary personnel is now a required part of the curriculum of all dental schools.

The Association has published and distributed millions of copies of booklets, leaflets, posters, and other material, most of it designed to safeguard and promote the oral health of children. It has since 1948 sponsored National Children's Dental Health Week to focus interest on the need for sound dental health procedures for children as the basic means for attaining life-long dental health.

Through the efforts of the Association, during this centennial year of 1959 dentistry has been undergoing the "most comprehensive survey in the history of the profession." The survey is being carried out by the American Council on Education at the request of the Association and is centered on four fields: dental education, dental research, dental practice, and dental health. The objective is a precise inventory of dentistry in the United States to determine the course of the profession in the years ahead.

The Association has done its part in seeing to it that millions of men and women in the military services received high-standard dental care when they were in need of oral attention. In World War II, some 22,000 dentists served in the armed forces. Since the outbreak of the Korean conflict in 1950, approximately 14,000 dental officers have been in military service.

The Association has maintained a continuing campaign to rid the community of unethical activities and other threats to public health. At the request of the Association, the so-called Mail Order Denture Law, or Traynor Act, was passed by Congress in 1942 to eliminate the activities of mail-order dental laboratories. These laboratories, using the mails, had been by-passing state dental laws prohibiting their activities.

Another constant concern of the Association has been state legislation designed to protect the health of the public. In the last twenty-five years of the nineteenth century, forty-two states adopted dental practice acts. Until that time, anyone could practice "dentistry." The dental practice laws, now in existence in all states and territories, means that the practice of dentistry is limited to qualified persons only. An outgrowth of this state legislation which has also brought about better standards of dental practice in the United States was the establishment by the Association in 1928 of the National Board of Dental Examiners. The board conducts examinations in scientific knowledge, and issues certificates of qualification that today are accepted by the official licensing agencies of thirty-three states, and the Army, Navy, and the U.S. Public Health Service.

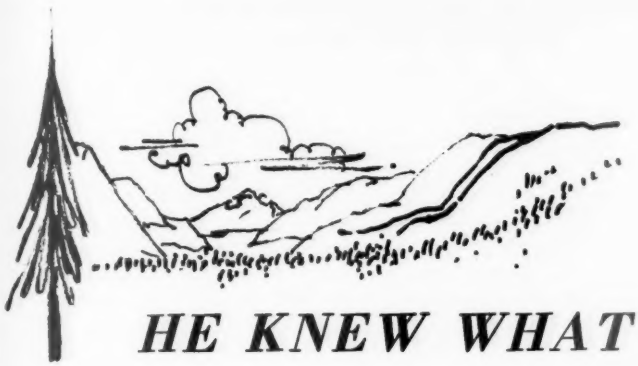
The Association has also been active in combating misleading claims for dentifrices. Last summer representatives of organized dentistry testified before a congressional committee to recommend legislation which would permit federal agencies to control reckless claims in dentifrice advertising.

In Summary

An authority on American dentistry summarizes this great century of dental progress in these words:

"In carrying out its mission as the representative of the nation's dentists, the American Dental Association has amassed a distinguished record of service to the public. In its 100 years of existence the Association has been the leader in establishing dentistry as a major health profession. Through its efforts, the education and training of dentists in the United States today is subject to the disciplines of the nation's great universities and is unexcelled anywhere in the world. Through its efforts, dental science and dental research have moved rapidly forward providing greater knowledge and improved procedures for the prevention and control of dental disease. Through its efforts, the dental profession has led in devising and encouraging programs designed to make available the benefits of health care to the entire public 'regardless of income or location.' A centennial is more than a time for counting the past; it is a time for measuring the future. The profession today can face a second 'Century of Health Service' with reasonable expectancy of achieving marked improvements in the public's health through continuing advancements in the science of dentistry."

NEXT MONTH—PART 7



HE KNEW WHAT HE WANTED

BY KAY LIPKE

This is the story of Doctor Charles A. Woessner, who is fortunate enough to vacation all through the year while he practices dentistry. He is in private practice in the Yosemite Valley of California, one of the loveliest of this country's national parks.

His office is in the Lewis Memorial Hospital, located in the fragrant, pine-scented woods, with spectacular Yosemite Falls, and all of its sister falls, cascading from the high encircling walls to the valley below, and the Merced River babbling its busy refrain as it tumbles over rocks down the center of the Park. Giant pines and cedars rise like sentinels everywhere. A more ideal location could not be imagined.

Not only does Doctor Woessner practice there during the crowded tourist season, from June through September, but he lives there the entire year with his attractive wife, Marian, and their three children. In the winter the entire family skis, skates, hikes, and sleds. Occasionally, Doctor Woessner even assists the rangers on their winter back-country ski patrols for measuring snow depths and water content.

In the summer there is swimming, fishing, riding, golf, and what-have-you. Doctor Woessner can meet the family at the beach at noon for a quick dip in the river before lunch, and perhaps can "wet a fly a few times" before returning to his office for the afternoon's work. After hours he can join the family at the beach again for a dip, a barbeque supper, and another try at trout fishing.

It sounds like ideal living, and it is for a dentist who deeply loves out-of-door living. However, Doctor Woessner did not stumble into this happy situation by accident. His home and dental office in Yosemite National Park came as an answer to a firmly held boyhood dream. He knew what he wanted many years before he attained it. After nine years in the Park, he is completely satisfied. Not for him the pressures and the ambitions of big city dentistry.

From the time he was a small boy, he loved Yosemite, having camped there many times with his parents. Later, during college days at the University of California, Yosemite served as a base of operations for mountain climbing, fishing trips, and ski expeditions.

He always wanted to get out of the city and live in some wooded mountain area. To him a dental practice in Yosemite has been the perfect opportunity he was waiting for. His wife loves the life there also, as do their children.

Doctor Woessner met his wife while going through the University of California School of Dentistry, where she was a laboratory technician for the dental medicine department. He graduated in 1950, and they were married the following year. The opportunity to practice in Yosemite opened up at that time and he rented office space in Lewis Memorial Hospital and began his practice.

The children were all born in the hospital at Yosemite and have known no other life than the carefree outdoor life of the valley. They go to Yosemite Elementary School, which has about 120 students. During the winter, school lets out on Wednesday afternoons and the children are taken to Badger Pass Ski Run for ski instructions, and of course have become unusually expert for their age.

All this is fine for the present, but other scholastic arrangements will have to be made later on, as there is no high school in the valley. This is one of the few disadvantages for the Woessners.

What are the other disadvantages? Doctor Woessner does not see many drawbacks, but confesses there is a difficulty in getting trained employees. Furthermore, he has to do some dental work which he does

not like because there is no one to whom he can refer patients. He also regrets being out of touch with other dentists, and finds it difficult to keep up with what is new in the dental field.

He does all phases of dentistry, including simple orthodontics, and assists the hospital surgeon with jaw fractures. Only the most unusual cases of periodontics and oral surgery are referred out. His laboratory work all goes by mail to a fine laboratory in Fresno. As the mail is only a day each way, the time element is no problem. Since he cannot send impressions, he has to pour all his own models, and cast most of his inlays.

In the summer, which is his busiest season, he hires a junior dental student, usually from the University of California. He finds that a junior student can be useful in the lab, do dental repairs, and handle many other jobs, including film processing. It is an advantageous arrangement, for Doctor Woessner gets trained help when he needs it most, and the student gets some practical work in an enjoyable setting. (Incidentally, Doctor Woessner is now taking applications for the summer of 1960.)

He says that dental practice in Yosemite is pretty much like a dental practice any place, except for three months in the summer. His patients are drawn from the community and involve all types of general dentistry. In summer he has, in addition to the tourists, a large group of loyal patients who return year after year as seasonal employees of the Park. They come to him for all dental services and bring their families.

Starting in early June, and continuing through early September, the busy tourist season considerably complicates his practice. Much of the work is on an emergency basis and without appointment. A typical day involves several denture repairs, treating toothaches by palliative measures or by extraction, and much Vincent's infection. He gets patients with fractured incisors due to a fall, a dive into shallow water, or perhaps an auto accident. He is also called upon to re-cement jackets and inlays and make denture adjustments.

Seldom does a night go by without a call to treat a toothache. Usually this seems to occur around cocktail time, or when he is at dinner with friends, or perhaps around three in the morning!

In the summer he has any number of odd and unusual experiences, but perhaps the most dramatic happening occurred in winter. One day he returned to his office from lunch to find an unconscious man in ski clothes prone on the waiting room floor, with blood coming from his mouth.

Doctor Woessner ran for the surgeon at the hospital, and together they revived the patient and got him into the dental chair. They discovered he had fallen, while skiing, on the pointed end of his ski pole. It had gone into his mouth and shattered his full upper acrylic denture, driving pieces of it into the flesh. A friend had driven him to the hospital and left him there, and while waiting for Doctor Woessner to return he had lost consciousness. It took the two men quite a while to pick the razor-sharp pieces of acrylic out of his soft and hard palate.

Doctor Woessner also gets an occasional glamorous chick who comes in and refuses to leave the office until a denture, broken facing, or jacket has been suitably repaired and she feels she can appear in public once again. This is in direct contrast to the old man who stands in the middle of the waiting room full of people, takes out his broken denture, hands it dripping to the poor startled receptionist, and says, "See if doc can fix this."

Doctor Woessner's plans involve no change for the future as far as he can see now. He and family are completely happy where they are, and consider Yosemite National Park their permanent home. Certainly they would find it very difficult to adjust to living anywhere else, after so many years in Paradise.

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The Woessners

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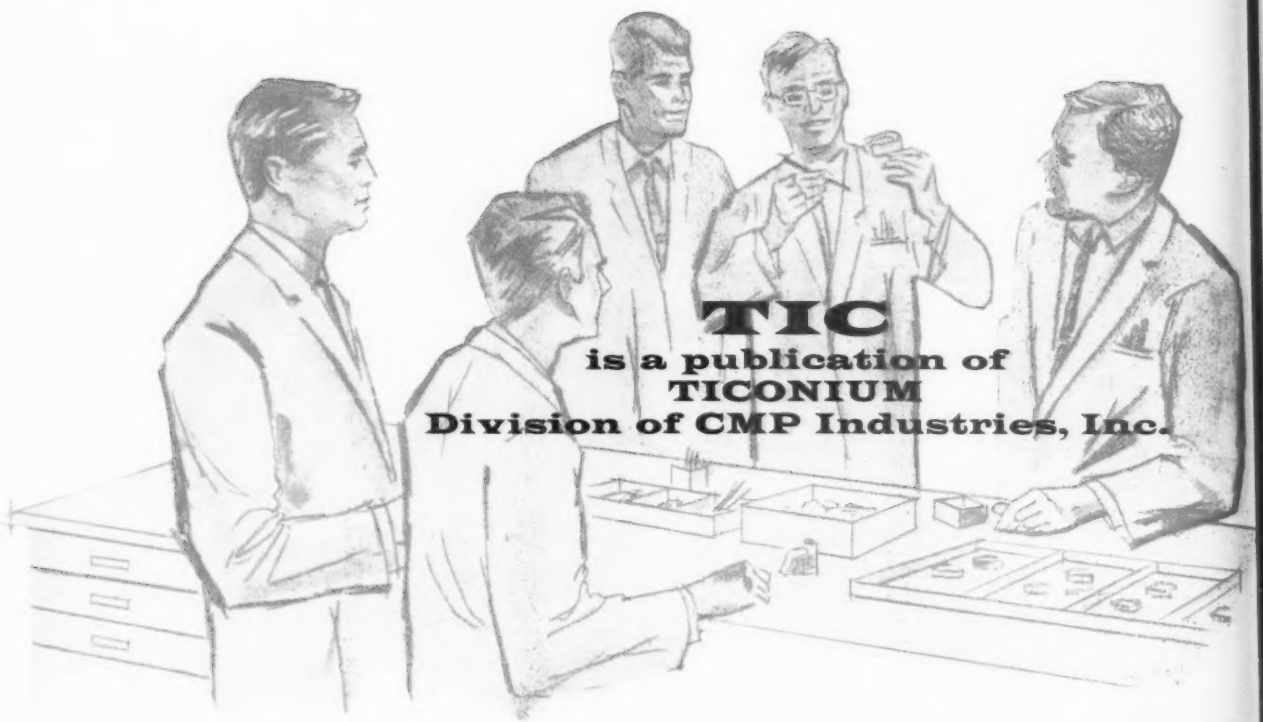

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